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APPENDIX 139-1

TCEQ CORRESPONDENCE

San Miguel 60

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 10, 2014

Mr. Ali Abazari
Jackson Walker, L.L.P.
100 Congress Avenue, Suite 100
Austin, TX 78701-2771

Re: Exclusion from the Definition of a Solid Waste
Solid Waste Registration Number 31434
RN100226539/CN600132278
Mailog Number 5137

Dear Mr. Abazari:

The Waste Permits Division (WPD) of the Texas Commission on Environmental Quality has received your letter of June 6, 2014 submitted on behalf of San Miguel Electric Cooperative, Inc. (SMECI). The WPD is also in receipt of the additional information related to the protection of surface water that you provided on June 20, 2014. Your letter requests the concurrence of the WPD that a mixture of fly ash and scrubber sludge (hereafter referred to as "coal combustion products" (a.k.a. CCP)) generated by SMECI at its lignite mine located in Atascosa County, Texas is excluded from being a solid waste under Title 30 Texas Administrative Code (30 TAC) Section (§) 335.1(138)(H) including when used as backfill material in the "South Lease" area of the mine.

Your letter and its attachments present documentation to demonstrate that each of the criteria, including the enumerated criteria i – viii, found in Title 30 TAC §335.1(138)(H) is satisfied. In brief summary, the documentation that each of the criteria is satisfied is as follows:

- Criterion *i* requires that a legitimate market exist for the recycled material being applied to the land. SMECI represents that it satisfies this criterion in two ways. The first is through an excerpt from a contract between SMECI and Boral Material, Inc. (BMTI)[1]. That contract stipulates both that BMTI will construct equipment for SMECI that will enable SMECI to handle its CCP and that BMTI will market annually up to 164,000 tons of SMECI's CCP. The second way is through a copy of a letter from the Texas Department of Transportation (TxDOT) that states that the CCP has been placed on TxDOT's list of prequalified materials for use in TxDOT projects[2];
- Criterion *ii* requires that the recycled material be managed and protected from loss as would be the case for a raw material. SMECI represents that it satisfies this criterion by indicating that the material is stored and managed in a manner that reflects its economic value. Specifically, SMECI presents the steps in detailed flow diagrams found in Attachments D and C of your letter. Attachment D diagrams the process of how the bottom ash portion of the CCP is protected from loss as it moves from the boiler to the point where it is transported either for placement in SMECI's mine or for recycling as described above. Attachment C diagrams the process by which the fly ash, flue gas

[1] The contact excerpt is Attachment B that accompanied your letter.
[2] A copy of the TxDOT letter is Attachment C that accompanied your letter.

desulfurization sludge, and the mixture of the two are protected from loss as all move from the electrostatic precipitator to the point all are transported either for placement in SMECI's mine or for recycling as described above;

- Criteria *iii – vi* are satisfied through SMECI statements that the quality of the product is not degraded by substitution of raw material; that applying the CCP to the land is an ordinary use and it meets the specifications of that soil that it is replacing without treatment or reclamation; that the CCP is not burned for energy recovery or used to produce a fuel; and that the CCP can be used as a product itself or to produce products as it is generated without treatment or reclamation;
- Criteria vii requires that the recycled materials not present an increased risk to human health, the environment, or the waters of the state when applied to the land or used in materials that are applied to the land. SMECI represents that it satisfies this criterion in multiple ways:

  First, SMECI provides documentation that its CCP is not a hazardous waste based on the language of Title 40 Code of Federal Regulations §261.4(b)(4) which specifically excludes CCP from being a hazardous waste;

  Second, SMECI provides analytical test results from representative samples of the bottom ash and the fly ash scrubber sludge mixture that show that the CCP does not have levels of constituents (e.g., cadmium, arsenic, lead, chromium etc.) that exceed the limits found in §335.1(138)(H)(vii)(I and II) when applied to the land or used in materials that are applied to the land[3];

  Third, SMECI submitted a hydrogeological evaluation report found in Attachment F of your letter. That Report evaluates the impact of the mining of lignite and subsequent reclamation activities on the naturally occurring levels of several constituents in the local groundwater (including soluble salts, total dissolved solids, etc.). The Report shows that there will be very little, if any, negative impact on any potable groundwater sources;

  Fourth, SMECI submitted a Surface Water Protection Plan[4]. Under this Plan, SMECI will implement a long-term groundwater monitoring regime for the South Lease area[5]. This regime will include quarterly sampling and analysis for metals and other constituents of concern. The Plan indicates that SMECI must evaluate the sample results and compare them to previously collected background samples of water quality in nearby surface water bodies that could be impacted by SMECI's mining operations. Under the Plan, SMECI agrees to implement corrective measures in the event that any quarterly water samples indicate a deviation from the quality in the background samples that could potentially have a negative impact on surface water quality.

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[3] This is Attachment A that accompanied your letter.
[4] This is Attachment G that accompanied your letter.
[5] The Plan was prepared as part of SMECI's obligation to the Railroad Commission of Texas. We understand that the placement of CCP back into the South Lease area is regulated under Chapter 134 of The Texas Surface Coal Mining and Reclamation Act. That Act requires that all toxic materials be treated, buried, and compacted or otherwise disposed of, in a manner designed to prevent contamination of the ground or surface water; insuring that the proposed land use does not present any actual or probable threat of water pollution; and ensuring that the surface mining permit and reclamation permit application contains detailed descriptions of the measures to be taken during mining and reclamation to assure the protection of the quality of groundwater and surface water.

- That criteria *viii* requires that at least 75% (by weight or by volume) of the CCP will be recycled on an annual basis. SMECI has represented that it will comply with this requirement either by recycling the CCP as backfill material in its South Lease area or in other ways (e.g., by use in TxDOT projects).

Based on the representations made and the information provided, the WPD has no objection to SMECI claiming an exclusion from the definition of a solid waste for its CCP under Title 30 TAC §335.1(138)(H). SMECI must manage its CCP in accordance with Title 30 TAC §335.4 (General Prohibitions), §26.121 of the Texas Water Code (Unauthorized Discharges) and all applicable TCEQ regulations.

If you have any questions regarding this matter, please contact Mr. Jesse Boultinghouse at (512) 239-6865. If you respond in writing, please use Mail Code 130 in the address.

Sincerely,

Earl Lott

Earl Lott, Director
Waste Permits Division Texas
Texas Commission on Environmental Quality

EL/JKB/sdm

cc: Mr. Mike Kezar, General Manager, San Miguel Electric Cooperative, Jourdanton

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 16, 2014

Mr. Ali Abazari
Jackson Walker, LLP
100 Congress Avenue, Suite 100
Austin, TX 78701

Re: San Miguel Electric Cooperative Inc.
Solid Waste Registration Number 31434
RN100226539/CN600132278
Mailog Number 5179

Dear Mr. Abazari:

The Industrial and Hazardous Waste (I&HW) Permits Section of the Texas Commission on Environmental Quality (TCEQ) has received your letter of July 11, 2014. Your letter requests clarification regarding the omission of "bottom ash" from the coal combustion products (CCP) excluded from the definition of a solid waste under Title 30 Texas Administrative Code (30 TAC) Section 335.1(138)(H) in our letter of July 10, 2014.

I thank you for bringing to our attention the omission of bottom ash from the letter of July 10. The bottom ash was meant to be included in the July 10 letter as one of the CCP excluded from being a solid waste. Please accept this letter as clarification that the bottom ash generated by San Miguel Electric Cooperative at its facility located in Atascosa County, Texas is included in those CCP that are excluded from being a solid waste under 30 TAC Section 335.1(138)(H).

If you have any questions regarding this matter, please contact Mr. Jesse Boultinghouse at (512) 239-6865. If you respond in writing, please use Mail Code 130 in the address.

Sincerely,

M. Scott Green

Scott Green, Work Leader
Industrial and Hazardous Waste Permits Section
Waste Permits Division

MSG/JKB/sdm

Cc: Mr. Mike Kezar, General Manager, San Miguel Electric Cooperative, Inc., Jourdanton

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§12 .139 - OPERATION PLAN: GENERAL REQUIREMENTS

GENERAL

This SMLM F, G and H permit application proposes to commence mining activities within the permit boundary as shown on Exhibit 139-1. The acreages to be mined and disturbed in each area for the proposed 5-year permit term are given in Table 125-1 and shown on Exhibit 139-1. Design criteria are based on an average annual lignite production of 3,250,000 tons delivered to the San Miguel Electric Cooperative, Inc. (SMEC) Power Station (440 gross megawatts). A portion of the 3,250,000 tons per year will be delivered from the proposed permit area and the remainder coming from existing Permit 11G area. Detailed information regarding the proposed operation plan is presented on the following pages.

This permit area will be mined utilizing a Marion 8050 dragline and mobile equipment as the primary means to remove overburden during the proposed permit term. Other equipment may be utilized as conditions dictate.

The topsoil and subsoil material (haulback) will be removed with mobile equipment prior to regular overburden removal. Topsoil and haulback material will be placed on shaped and graded spoils or stockpiled for future placement on shaped and graded spoils. This "haulback" method will assure that the A, E and B soil horizons will remain at the surface of reclaimed spoil.

The dragline will uncover lignite from three to four seams (A, B, C, and D), which are contained in one zone, that is continuous over the entire mine area. Where the seams exist, "A" seam averages 1.0 ft thick; "B" seam averages 2.5 ft thick; "C" seam averages 1.9 ft thick; and "D" seam averages 2.9 ft thick. These seams are separated by thin clayey parting material generally containing some lignitic properties. These parting materials are not economically feasible to recover. Table 139-1 gives the total production summaries by year for the proposed five-year permit term.

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TABLE 139-1 PERMIT AREAS F, G AND H ANTICIPATED PRODUCTION SUMMARY				
Annual Coal Production	**Area F (Tons)**	**Area G (Tons)**	**Area H (Tons)**	**Total (Tons)**
Year 1	0	0	0	0
Year 2	1,401,000	584,000	0	1,985,000
Year 3	254,000	2,500,000	0	2,754,000
Year 4	600,000	500,000	2,000,000	3,100,000
Year 5	62,766	1,315,288	539,008	1,917,062

The uncovered lignite will be cleaned with continuous surface miners, rubber-tired dozers or other mobile equipment, as required (generally one foot of material), before lignite is extracted. The continuous surface miners will be utilized as the primary extractor of lignite which will be loaded into bottom and/or end dump trucks and transported to the truck dump hopper or the lignite stockpile located at the San Miguel Power Plant.

Grading of spoil peaks will be performed as specified by the reclamation timetable (Table 145-1) after lignite removal and prior to haulback, and topsoil replacement and re-vegetation.

There are no offices or maintenance facilities for mining activity currently planned in this permit area.

The following sections discuss operational activities in more detail for the proposed permit term.

TOPSOIL HANDLING METHODS

Clearing and Grubbing

Prior to surface mining activity, the existing vegetation must be removed. The equipment fleet used to remove the vegetation includes:

- Dozers
- Multi-application rake
- Root plow

Manpower requirements vary with production demand; however, a dozer operator and laborers are generally utilized.

Clearing and grubbing is required to eliminate protruding obstacles for dragline trail cable movement, provide safe operation and reduce potential for equipment damage. Clearing and grubbing in advance of mining operations requires uprooting vegetation, stacking and burning trees and brush or placement of vegetation in excavated mine pits for covering with overburden. Trees and brush are uprooted and stacked with a dozer and remaining roots are sliced by a root plow below the ground surface, collected and stacked with a multi-application rake. Stacked vegetation is then burned or buried.

Additional areas that will be cleared include: topsoil stockpile locations, haulback and construction material stockpile locations, roads outside the immediate mined area, pond embankment areas, sediment pool areas and power line corridors.

This activity will follow a schedule that is approximately four pits ahead of mining operation although this schedule will vary at times. Clear and grub distance will be dependent on production schedules, plant outages, weather, and equipment and labor availability for clearing and grubbing. Because the dragline will be mining three pits simultaneously, clearing and grubbing equipment will be relocated throughout the mining areas as dictated by when the dragline will be moving into different areas. At times it may be advantageous to clear out larger areas before relocating equipment to new areas. The maximum distance of clearing and

grubbing activities from an active pit is 8 pits in advance and 4 pits in advance for a pit in TCO. Table 139-2 indicates the time schedule and estimated acres to be cleared during the proposed permit term.

TABLE 139-2 PERMIT AREAS F, G, AND H CLEARING AND GRUBBING SCHEDULE	
YEAR	**ACRES**
1	404
2	448
3	351
4	356
5	127
Total	**1,686**

Topsoil Handling

Topsoil removal commences once clearing and grubbing activities are completed. The topsoil removal operation is coordinated with SMEC's reclamation department. Topsoil is removed to depths in accordance with approved soil survey maps at the direction of an agronomist or soil scientist with knowledge of local soils. Operators performing the topsoil removal will be trained to identify the topsoil from subsoil and a staff agronomist will regularly check that the proper topsoil thicknesses are being taken to avoid contamination or topsoil loss. The NRCS proposed topsoil removal depths are included as Appendix 139-2. The minimum topsoil removal and replacement thicknesses will be 6 inches.

SMEC proposes to remove all native topsoil material, defined by the RCT as the A and E horizons, for redistribution on the reconstructed subsoil material. If an area exhibits a native topsoil layer less than 6 inches thick, the topsoil and unconsolidated material immediately below the topsoil will be removed to a depth of 6 inches and handled as topsoil.

A buffer zone of approximately 100 feet is maintained around the mine area to ensure that topsoil is not lost or contaminated.

Topsoil will generally be removed by a combination of mobile equipment including scrapers, dozers, continuous surface miners, hydraulic excavators, front-end loaders, coal trains and haul trucks. Topsoil will be either stored in temporary stockpiles or distributed directly on prepared regraded areas. Table 139-3 summarizes estimated topsoil volumes to be removed during the proposed permit term assuming a 9 inch average thickness. Topsoil stockpiled from the three distinct mining areas will be kept separate and will be used as replacement within the area it originated from.

TABLE 139-3 PERMIT AREAS F, G AND H TOPSOIL REMOVAL VOLUMES	
Year	**Topsoil Volumes (BCY x 1,000)**
1	446
2	448
3	465
4	489
5	182
Total	**2,030**

Topsoil replacement will generally follow replacement of the haulback material as shown on Table 145-1. The distance from the active pit to haulback placement will vary due to ongoing spoil grading and haulback placement operations as discussed in **Haulback Material Handling** and **SPOIL GRADING** later in this section. Figures 139-1 and 139-2 illustrate the maximum distances from completed haulback placement to the last active spoil peak. The estimated topsoil replacement volumes are shown in Table 139-4.

TABLE 139-4 PERMIT AREAS F, G AND H TOPSOIL REPLACEMENT VOLUMES	
Year	**Topsoil Volumes (BCY x 1,000)**
1	0
2	25
3	198
4	240
5	167
Total	**630**

Depending on size and length of usage, temporary topsoil stockpiles may be constructed in two or more lifts. All stockpiles will be established, marked and maintained utilizing 3H:1V (horizontal to vertical) or flatter slopes. All topsoil stockpiles will be temporary structures approximately 40 feet tall and will be seeded within 60 days, weather and planting conditions permitting, following completion of construction to minimize erosion. Temporary topsoil stockpiles placed in the vicinity of boxcut placement areas will remain in place until final reclamation of the associated mine area. Table 139-5 provides stockpile designations, approximate capacities and anticipated year of construction. Exhibit 139-1 illustrates topsoil stockpile anticipated locations.

Once reclamation activities deplete the stockpiles, all topsoil stockpiles will be regraded to approximate pre-mine contours and the disturbed areas will be seeded. The area will be monitored to ensure vegetation is reestablished over the stockpile footprint areas.

TABLE 139-5 PERMIT AREAS F, G AND H TOPSOIL STOCKPILE CAPACITIES		
Topsoil Stockpile Designation	**Capacity (CY x 1,000)**	**Initial Construction Date (Year)**
TS-1	516	1
TS-2	871	1
TS-3	293	3
Total	**1,680**	

Haulback Material Handling

Haulback material removal follows clearing and grubbing activities and topsoil removal in all areas. The haulback material removal operation is coordinated with SMEC's reclamation department and haulback material is removed to a depth of four feet below the original roof of topsoil surface. A combined topsoil and subsoil depth of 48" is characterized in the native soil baseline (Section 12.134) to insure that a minimum of four feet of reconstructed native soil material is replaced on leveled spoil and to allow for settling.

Survey locations and elevations are utilized to assure the proper depth of material is removed as required in the minesoil monitoring plan. Surveyors collect surface points in advance of clearing and grubbing operations ahead of the pit and label the data as "roof of topsoil." Once topsoil is removed, surveyors collect surface points from the removal area and label the data as "floor of topsoil." Once the haulback is removed, surveyors collect surface points from the removal area and label the data as "floor of haulback." From the three data sets removal depths of topsoil and haulback are derived. This data is submitted to RCT on an annual basis in the form of both removal and replacement isopachs and cross sections.

Haulback material will generally be removed by a combination of mobile equipment including scrapers, dozers, continuous surface miners, hydraulic excavators, front-end loaders, coal trains and haul trucks. Haulback material will be either stored in temporary stockpiles, or distributed directly on regraded areas. Table 139-6 summarizes estimated haulback material volumes to be removed during the renewal/revision term assuming a 3.25 foot average removal thickness.

Haulback material replacement will follow spoil regrading and will lag the last active spoil peak by a maximum distance as shown on Figures 139-1 and 139-2 as measured from the intersection of the last spoil peak and the active regrade area to the beginning of subsoil placement. Table 139-7 summarizes estimated haulback material volumes replaced during the permit term assuming a 3.25 feet average placement depth. This depth corresponds to

0.75 feet of topsoil replacement for a total suitable material depth of 4.0 feet.

TABLE 139-6 PERMIT AREAS F, G AND H HAULBACK REMOVAL VOLUMES	
Year	**Haulback Material Volumes (BCY x 1,000)**
1	471
2	1,593
3	1,617
4	1,803
5	897
Total	**6,381**

TABLE 139-7 PERMIT AREAS F, G AND H HAULBACK REPLACEMENT VOLUMES	
Year	**Haulback Material Volumes (BCY x 1,000)**
1	0
2	97
3	900
4	1,033
5	722
Total	**2,752**

Haulback material stockpiled from the three distinct mining areas will be kept separate and will be used as replacement within the area it originated from. Depending on size and length of usage, temporary haulback material stockpiles may be constructed in two or more lifts. All stockpiles will be established, marked and maintained utilizing 3H:1V or flatter slopes. The top 6" of topsoil will be removed prior to haulback material placement. Once the stockpile

reaches capacity, 6" of topsoil will be placed on the stockpile to reestablish vegetation. All haulback material stockpiles will be temporary structures approximately 40 feet tall and will be seeded within 60 days, weather and planting conditions permitting, following completion of construction to minimize erosion. Temporary haulback stockpiles placed in the vicinity of boxcut placement areas will remain in place until final reclamation of the associated mine area. Exhibit 139-1 illustrates the anticipated locations of the temporary haulback material stockpiles. Table 139-8 provides approximate haulback stockpile capacities.

Once reclamation activities deplete the stockpiles, all haulback material stockpiles will be regraded to approximate pre-mine contours and 6" of topsoil will be placed over the disturbed areas and seeded. The area will be monitored to ensure vegetation is reestablished over the stockpile footprint areas.

TABLE 139-8
PERMIT AREAS F, G AND H
HAULBACK STOCKPILE CAPACITIES

Haulback Stockpile Designation	Capacity (CY x 1,000)	Initial Construction Date (Year)
HB-1	860	1
HB-2	773	1
HB-3	1,903	1
HB-4	817	3
Total	4,353	

Select Material Handling

There are no plans for using either the dragline or mobile equipment for selective handling of overburden during the renewal/revision term.

OVERBURDEN REMOVAL

General Pit Layout

Dragline stripping will be the primary operational technique utilized for this mine plan. Generally, the dragline will use the simple side cast method of operation to remove burden material. The material will be cast directly into the previously mined pits that can range from 100 to 200 feet wide. Figure 139-3 is a side cast range diagram for the Marion Dragline. A variation of this would include chop-cutting. In this method the dragline would dig material above the elevation it is sitting at and cast directly into the pit. Figure 139-4 is a range diagram depicting chop-cutting for the Marion dragline.

At deeper depths, the dragline may utilize spoil side stripping whereby a portion of the dragline cut material is cast into the previously mined pit. This spoil is then leveled with dozers and, after a sufficient length of pit has been partially stripped, the dragline will cross over into the leveled spoil. The dragline will strip the remaining overburden from the spoil side, depositing the removed overburden on the bench behind the advance of the dragline. Spoil side stripping range diagrams are provided in Figures 139-5 through 139-10. In a similar method, a dozer would push material into the previously mined pit and the dragline would cross the leveled spoil and strip the remainder of the pit from the spoil side. This Dozer Push method is illustrated in Figures 139-11 through 139-13. Design parameters in Table 139-10 were utilized to develop pit characteristics.

When dragline stripping capacity is exceeded, auxiliary mobile equipment stripping will be utilized to supplement the dragline fleet. This may include prestripping with the Dozer Push method described earlier or prestripping by using a hydraulic excavator and trucks to remove overburden ahead of the dragline and respread it in the valleys of the spoil.

In areas with overburden depths less than 60 feet, the dragline, dozers or mobile equipment may be used to completely remove overburden to the roof of coal. When dozers are used, the method illustrated in Figure 139-14 will be utilized. Dozers will push overburden into the empty pit from the edge of coal at an uphill grade of approximately 20%. When the Dozer Push method is utilized, the dozer pit will advance slower than the dragline pit.

TABLE 139-10 AREA F, G AND H MINE DESIGN PARAMETERS	
Highwall Angle (0-110 ft. of overburden depth)	63 Degrees
Highwall Angle (110-120 ft. of overburden depth)	50 Degrees
Spoil Slope Angle (normal side cast operation 0-80 ft.)	38 Degrees
Spoil Slope Angle (spoil side operation 80-120 ft.)	23 Degrees
Spoil Slope Angle Range	23-38 Degrees
Swell Factor	20 Percent

GEOTECHNICAL PARAMETERS

Previous geotechnical studies, geologic information, previous mining history, and geotechnical studies in Permit 11G and 52A were utilized to provide geotechnical guidelines for the proposed permit area. A high wall and spoil engineering study titled *Atascosa Mining Company, Slope Stability Study* (1983), was performed for the mine operations in the Permit 11G area in 1983. Another study included field drilling and sampling, laboratory testing, and slope stability analyses within the first five-year mining area in Area B of Permit 11G. A study including field drilling, sampling, laboratory testing and slope stability analysis was conducted for the first five-year mining area of the proposed F, G and H permit area. This study is titled *San Miguel South Lease Lignite Mine Expansion, Pleasanton, Texas (2014).* A copy of the 2014 study is included as Appendix 148-5, Section 12.148 of this permit application. Previous mining history provides a mining method which has proven successful in handling the burden material and extracting lignite safely.

The slope stability analyses performed for the 1983 geotechnical report and the Area B geotechnical study include representative highwall and spoil slopes. The computer programs STABLE (Siegel, 1975) and PCSTABL5 (Carpenter, 1986), which use a modified Bishop method of slices procedure, were utilized to investigate the highwall and spoil stability.

Results of the 1983 analyses for highwall slopes of 63° were safety factors of 1.75 to 1.64 for 72-foot and 92-foot high wall heights, respectively. These values are well above the minimum 1.3 safety factor design criteria.

The results of the Area B geotechnical analysis demonstrated high walls up to 110 feet with a 63° slope and high walls between 110 and 120 feet at a 50° slope will have a 1.3 factor of safety and average shear strength of 3050 psf. All undrained shear strength values in the area of the F and G pits of the proposed permit area exceeded 3050 psf so it can be inferred that the factors of safety for the proposed F and G area also exceed 1.3.

The 2014 report notes that although groundwater was not observed during the investigation, it is recommended that any ground water encountered should be intercepted and kept away from the highwalls to minimize any impact on stability.

Historically, spoil slopes with a uniform slope configuration have been prone to failure where overburden depths exceed 90 feet. The 1983 geotechnical report determined that a weak, highly montmorillonitic clay below the lignite seam was the reason for the failures. This clay is also present beneath the lignite seams in the F and G area. In order to prevent spoil slope failures, a bench is positioned in the spoil material to effectively reduce the overall spoil slope angle and reduce the loading conditions on the pit floor. Geotechnical evaluation indicates that an acceptable factor of safety (over 1.1) will be secured using this spoil side stripping method. This spoil side stripping technique has been successfully employed in the Permit 11G area. The current operation is using 30° to 37° spoil slopes and a bench in the spoil pile that provides the factor of safety required. This method has proven effective and will continue to be utilized.

A side cast range diagram for the Marion Dragline is shown in Figure 139-3. Spoil side stripping will be utilized as the dragline operations approach 80 to 90 feet of depth as conditions dictate. Spoil side stripping range diagrams are provided on Figures 139-5 through 139-10. Thin sandstone lenses are present in the overburden material but are not anticipated to cause significant problems to dragline stripping procedures.

Overburden Removal Sequence

Overburden removal is scheduled 24 hours per day, five to seven days per week or as required. Annual mine advance is shown on Exhibit 139-1. A grade separator at FM 791 allows access from the proposed permit area to the Permit 11G area. A haulroad will be constructed to connect the two permit areas, passing under FM 791. Because the haulroad passes under FM 791, a variance is requested to allow operations within 100 feet of the ROW to FM 791.

A dragline walkway will be constructed to connect the two permit areas, passing over FM 791 temporarily. Because the dragline walkway passes over FM 791 temporarily, a variance is requested to allow operations within 100 feet of the ROW to FM 791.

The haulroad will also be constructed between Areas F and G near Exxon Road. A haulroad crossing will be constructed at Exxon Road to allow mine traffic access between Areas F and G. Because the haulroad passes Exxon Road, a variance is requested to allow operations within 100 feet of the ROW to Exxon Road.

Sedimentation ponds will also be constructed in the proposed permit area for surface water control prior to the beginning of overburden removal operations.

Overburden depths in the proposed permit area generally vary between 20 feet and 110 feet deep during the proposed permit term.

Final Highwall

During the permit term, three end-pits will be encountered in Areas F, G, and H.

Exhibit 145-4, the Postmine Topography Map, assumes that coal combustion products will be used to fill the final pits and pit ends. The reclamation timetables, Tables 145-1 and 145-1a,

in Section 12.145 were developed to address the additional time required for final pit reclamation.

Reclamation of end-pits will occur in the following sequence:

- Dozers will push remaining dragline peaks towards the pit and grade them to the proposed postmine contours.
- The remaining pits will be backfilled with coal combustion products to approximately 5 feet below the proposed postmine contours. Spoil material from stockpiles may be used for additional fill.
- Haulback and Topsoil will be replaced using mobile equipment with material from existing and future stockpiles.

Boxcuts

Boxcuts, or the initial cuts, in Areas F, G and H will be required. The overburden material will be removed with mobile equipment (trucks, wheel loaders, continuous surface miners, scrapers, etc.), and placed on in-situ ground that has had topsoil and haulback material removed. This will create stockpiles OB-1 and OB-2. Silt fencing and berms will be used to control sediment.

LIGNITE CLEANING, LOADING AND HAULING

Lignite Cleaning and Parting Material

A small amount of burden material remains over the first lignite seam when dragline burden removal operations are complete. This material is left to avoid dragline bucket contact with the lignite that would cause lignite loss as well as degradation of the remaining lignite. Therefore, approximately one foot of burden material remains after dragline burden removal is complete.

Continuous surface miners and dozers will be the primary equipment used to remove this material. Haul trucks, rubber-tired dozers, front-end loaders and scrapers will also be utilized. Continuous surface miners will cast this material directly onto the base of spoil material as conveyor reach allows. The continuous surface miners may also load trucks or scrapers which will transport material to mined portions of the pit or to the surface where it is placed adjacent to the current pit and pushed back into the bottom of the pit when lignite has been removed. The front end loader and rubber-tired dozer will push the burden material to the dragline face or to the spoil pile, while scrapers will haul the material to previously mined portions of the pit. Regardless of removal method, the approximate one foot thick layer of removed burden material will be placed where there will be at least four feet of cover containing acceptable non-AFM, non-TFM material.

In situations where pits are near the subcrop (shallow end) of the lignite deposit, the dragline may place oxidized lignitic material on the low wall or high wall side of the pit being excavated. This material will then be pushed by dozers or rehandled by the dragline into the open pit after lignite removal to assure that this lignitic material is placed at least four feet below the surface of the graded spoil.

Parting material (i.e., lignitic clay material between lignite seams with low calorific value) will be removed by loading and/or hauling equipment and initially could be placed adjacent to

the low wall or high wall of the pit and either covered with four feet of acceptable material or pushed back into the pit once all lignite is removed. Parting material may also be hauled and placed within pit areas where all lignite has been removed. In this manner, there will not be lignitic material in the top four feet of reconstructed spoil.

Lignite Loading

Continuous surface miners will extract and load the lignite utilizing front-end loaders for support. The continuous surface miner utilizes a diesel-powered rotating horizontal drum that breaks the lignite material and loads the lignite over a tail boom conveyor into trucks. No blasting is required for this operation. Front-end loaders are used at pit ends and other areas where the continuous surface miner cannot work, or in cases when the continuous surface miner is not available. Projected annual production is shown in Table 139-1 for the proposed permit term.

Lignite Hauling

Lignite will be loaded into bottom dump trucks and/or end dump trucks. These units will transport the lignite from the pits along the transportation routes to the truck dump hopper at the San Miguel Power Station. Temporary coal transfer piles are anticipated near the top of pit ramps. These piles, hauled to top of the ramps by smaller 100 ton class trucks, will be used only to store coal temporarily until larger 150-240 class trucks can carry the coal to the San Miguel Power Plant complex. These piles will be built within the immediate mine area and within drainage control. They are not expected to be larger than 15,000 – 20,000 tons nor last longer than two months.

TRANSPORTATION SYSTEM

The transportation system in this proposed permit term consists of travel paths for mobile equipment and supervisory personnel that are within the Immediate Mining Area (IMA) or within the area controlled by sedimentation ponds. Roads outside surface water control are addressed in Section 12.154.

Anticipated truck travel routes are provided on Exhibit 139-1. Travel ways are inspected regularly by mine personnel for signs of degradation and will be maintained to ensure a safe reliable transportation system. When no longer needed, travel ways will be removed or regraded, and the topsoil replaced and revegetated as part of the reclamation plan. If a landowner sees some benefit to leaving improved travel lanes in place, a design will be submitted to the RCT for approval as a permanent road. If roads are requested to be left, SMEC will include these roads in major revision or renewal applications. If this is not possible, a revision application for road reclassification will be submitted.

For in-pit access, in-pit ramps and in-pit travel lanes are constructed from locally available material. Lignitic parting material may be utilized on these ramp roads as a base material. SMEC may access the pits from the highwall or low wall side of the mine pits to remove lignite. When this is done, haul trucks will travel in the active portion of the mine disturbance area until such time as they reach an established travel way.

Access/Service Roads

There are five primary and three ancillary roads included within the proposed permit boundary. Ramp Roads 1F, 2F, 1G, and 2G will be utilized to transport lignite from the pit areas to the main haulroad. The main haulroad will be utilized to transport lignite, ash, equipment, and personnel from the mining area to the power plant. The main haulroad will connect to the existing Area E haulroad in Permit 11G near the intersection of the haulroad and FM 791. This road will continue to be used throughout the permit term.

A walkway will be constructed within the IMA for the dragline to walk between the alternate mining areas in the other mining blocks. The alignment for the walkway can be found on Exhibit 139-1.

Should ancillary roads be required in the future for access to ponds or other areas that are not within the IMA, they will be constructed as follows: the climate and existing material in the area dictate that access roads be cleared, topsoil removed and the subgrade compacted; no base course is required unless SMEC chooses to utilize base course material. Any plan to construct a road not within the IMA will be submitted to the RCT as a permit revision.

Additional information regarding roads and access may be found in section 12.154.

SPOIL GRADING AND COAL COMBUSTION PRODUCT PLACEMENT

There are two phases to spoil grading. The first phase is rough leveling which entails flattening spoil peaks and filling in the valleys. Spoil peaks in the mine pit area will be temporary structures, which will be regraded so that there will not be more than four spoil peaks behind the pit being worked, the spoil from the active pit being considered the first peak. For operational efficiency reasons and possible safety concerns, a minimum of one valley, or two spoil peaks, need to stand to keep equipment away from the last peak. If this distance isn't kept, there is a risk of pushing spoil back into the pit or working too close to the dragline swing radius. The fourth spoil peak will then be the active peak being reclaimed by pushing the spoil material toward the third and second peaks to fill the corresponding valleys. Final spoil grading is the second phase and entails establishing the drainage patterns and other land features to obtain the approximate original contour. A variance for time and distance is requested from contemporaneous backfilling and grading requirement as stated in Section 12.384 (a)(3) to allow the peaks to remain standing for greater than 180 days and to allow additional distance.

Coal Combustion Product Placement

Based on recent correspondence with the Texas Commission on Environmental Quality, coal combustion products are exempt from the definition of solid waste. This correspondence is included as Appendix 139-1.

San Miguel will use fly ash, Flue Gas Desulfurization (FGD) material and bottom ash (collectively referred to as "coal combustion products") in the proposed permit area. Coal combustion products may be deposited in active pits after lignite is extracted or in the valleys between spoil peaks. Generally, products will be placed in mined-out pit areas just prior to dragline excavation of the adjacent pit so that the products are covered quickly with the dragline. This activity does not adversely affect approximate original contour (AOC) because more lignite vertical height will be removed than coal combustion product height will be returned.

At the power plant, fly ash is mixed with FGD sludge to eliminate the dusting characteristics associated with the fly ash while bottom ash is hauled separately. Ash products are trucked from the power plant to the mining area for placement. When in full operation, San Miguel Unit No. 1 produces approximately 1,787,500 cubic yards of ash product annually. This annual ash production volume is an estimate based on observed past production and varies based on plant demand and geologic factors. A portion of this product is sold each year and the rest will be used in the mine areas. Total production is approximated by 50% of burned tons; and a conversion factor of 1.1 cubic yards per ton of ash. Weight studies in 2005 of the Komatsu 330M haul trucks used to transport ash have confirmed that an approximate payload of 90 tons is achieved per load. Loads are counted to determine the total annual ash production. Density tests in 2006 have supported the assumption that about 100 cubic yards of ash product are transported per load.

After completing deposition of coal combustion products, a final cover of at least 3.25 feet of haulback material plus 0.75 feet of topsoil will be placed over the coal combustion products to provide a growth medium for timely revegetation. The top four feet of this cover (including

topsoil), free of AFM and TFM, will be achieved by using the same haul-back and topsoil replacement materials and methods proposed for all disturbed areas.

Final reclamation will be practiced in the same manner as the other postmine land areas, meeting the reclamation timetable (Table 145-1) and AOC as set out in the postmine topography in Exhibit 145-4. The exception will be the additional placement of coal combustion products in the Area F, G, and H end pits, which will also assist in achieving approximate original contour. The final cover grade for this area will be at a 7:1 slope or less, as shown on Exhibit .145-4. Reclamation will be completed according to Table 145-1a.

Water trucks are utilized along roads to coal combustion product placement areas and on the surface of placement areas for dust control. Motor graders maintain roads as needed and grade cover material to acceptable suitability prior to topsoil placement.

A map depicting the yearly coal combustion products placement operations will be provided annually to the RCT, which will clearly indicate the extent of actual placement of the coal combustion products; an estimate of the volume and thickness of the ash material placed annually in each disposal cell or pit; the extent of areas where final ash grade has been met; and the extent of areas where the 4-foot cover over ash has been placed to meet AOC or final grade for the end pit placement areas. This map will be submitted by the end of the first quarter of the year following placement. A list of affected land tracts will also be provided with the submitted map.

Coal processing is not performed at this mine; therefore, no coal processing wastes are generated.

Timing and Distance

Reclamation activities follow a yearly cycle coinciding with the spring power plant outage. The reduced demand for lignite increases haul truck and loading equipment availability for stripping operations. During spring outages, topsoil and haulback stripping advances several

pits ahead of the active pit, resulting in decreased placement distances. As the year progresses, the active pit moves away from the placement edge and advances as close as one pit from the stripping edge. The distances between the fourth peak and the haulback haulroad will increase to a maximum of 420 feet. Figures .139-1 and .139-2 represent maximum distances going into the spring outage. This distance is required due to a number of factors:

a. The relatively flat topography of the mine area requires that spoil be regraded over a larger area in order to insure proper drainage.
b. San Miguel utilizes GPS guidance control on dozers in order to design proper drainage control. This system achieves a higher degree of accuracy when measured over larger areas.
c. Drainage control features must be constructed within the final spoil grading area in order to maintain areas in which to operate and to prevent surface water flows into the active pit this has to be done no matter the current weather conditions in preparation for rain events.

The fourth spoil peak represents the maximum distance rough leveling will lag behind an active pit. At times dozer and mobile equipment resources will be focused on other operations; this can take up to 60 days. Once the other operations have advanced adequately, the focus of dozer and mobile equipment resources will shift back to reclamation to complete rough grading up the second peak.

Truck travel routes are outside of the grading area and are constructed over the final graded spoil with a typical 80-foot travel width and a four-foot side slope on each side so as to allow the equipment to travel to and from the work area in a safe and efficient manner, for a total of 88 feet in width. Active haulback placement operations occur beyond the truck travel routes and require an area of 200 feet in width due to the operating radii of the dozers and trucks. This distance is necessary to allow for sufficient dumping and turning radii for the trucks and to allow sufficient push distance by the GPS-guided dozers to achieve adequate haulback depth and proper drainage. Topsoil placement will occur 140 feet behind completed haulback to allow for working room. The typical reclamation scenario is depicted on Figure .139-1

Spoil Side Ramps

Spoil side ramps into the pit will extend beyond the distances shown in Figure .139-1 and will require additional distance and timing for final reclamation. The majority of the coal is hauled from the pit utilizing Komatsu Mega 330M haulers with dual trailers. Ramp grades as shallow as 6% are used to prevent slipping or stalling and limit overheating and wear on coal hauler drive trains. Ramp lengths will vary depending on depth, up to 1,330 feet for an 80 feet deep pit. Ramp areas are backfilled with parting and capped with spoil material from either side of the ramp. A distance of 500 feet as measured perpendicular to the ramp edges is required on either side of the ramp to allow for standing spoil peaks to be used as capping material, dozer working room, truck travel ways and haulback placement area. This buffer will extend 500 feet past the ramp crest (where the ramp grade intersects with AOC) to allow for truck haulage ways around the crest of the ramp. The 500 feet distance has three components:

1. 200 feet between the crest of the ramp and the haulroad intersection. When parting is placed on the ramps, coal haulers exit the pit, complete a 180^0 turn on level ground, and dump the trailers while traveling back down the ramp. The 200 feet distance allows for this maneuver to be completed without entering the haulback haul pattern. The distance also allows the 140 feet long coal haulers to safely stop on level ground for any cross traffic.
2. 88 feet for the haulback road and side slopes.
3. 212 feet for haulback placement working room. This area is also required for equipment staging, designated light vehicle parking, and temporary coal stockpiles.

This ramp layout is shown on Figure .139-2. As the pit is advanced this variance area will advance with it.

Non-Coal Wastes

Non-coal wastes on the land to be mined are restricted to trees and brush resulting from clearing and grubbing operations. These will be stacked and burned under current approval as agricultural burning by the TCEQ and the remnants spread or placed in the mine pits. The

material could also be pushed into an open mine pit and buried. Non-coal wastes generated at the facilities are disposed using a private waste disposal company, which transports the waste off site to an approved disposal site.

TEMPORARY CESSATION OF OPERATIONS

The mine blocks in Areas F, G and eventually H will be mined by alternating the pit advance, as necessitated by coal removal operations. This alternating advance will require mining to temporarily cease in one area in order to facilitate coal removal as the dragline walks to the alternate area and begins mining. These temporary cessations of operations (TCO) will last for 30 days or more. The RCT will be notified according to Section 12.397(b), Texas Coal Mining Regulations, when a TCO is necessary and the mining operations are going to leave a pit. The exact location and acreages of the TCO areas will be dependent on coal demands.

When the mining operations leave a pit, regrade operations will continue to ensure that no more than three spoil peaks will remain. Reclamation activities will continue to ensure that areas with completed haulback placement are no more than 708 feet behind the last spoil peak, as shown on Figure 139-1. However, there will be an area within the 708 feet without completed haulback placement and an area without topsoil placement. The timing shown on Figure .139-2 will not be met for the areas included in the TCO. Completed topsoil placement will occur in the areas no more than 848 feet behind the last spoil peak to provide working room for equipment to spread topsoil without impacting planted areas when the pit activities resume in an area. Topsoil will be spread and vegetated. Activities such as water treatment and environmental monitoring will continue during the temporary cessations.

VARIANCES

SMEC is requesting an approval to conduct surface mining operations within 100 feet of the buffer zone of FM791 and Exxon Road as discussed in this section under Overburden Removal Sequence.

SMEC is requesting to conduct surface mining operations within 100 feet of the buffer zone of La Jarita Creek. The request includes haul road and La Jarita Creek Bridge. These operations may include reclamation, regrade, erosion control, maintenance, mowing and haying activities, grazing, and vegetation clearing as well as active lignite removal operations.

SMEC also requests a variance to backfilling and grading as described in this section under SPOIL GRADING.

WATER CONTROL

Water control structures consisting of sedimentation ponds, evaporation ponds and control ditches will be constructed as permanent impoundments or removed according to the schedules shown on Tables 148-1 and 2. The removal schedule may be altered if landowners request that SMEC not remove the structures. In such an instance, the RCT will be notified. If the landowner requests such a reclassification, SMEC would attempt to submit the request during a major revision or renewal application. If this is not possible, SMEC would submit an individual revision as required. Water control plans are addressed in detail in Section 12.148 of this application. Table 148-1 lists the proposed water control ponds, and proposed construction dates.

Dams, embankments and other impoundments will be inspected quarterly, unless otherwise required by MSHA, to assure compliance with regulations and design standards. Any required repairs noted by these inspections will be accomplished as soon as feasible. Ditches will be maintained to assure that an unrestricted flow of water will occur during rainfall events. Any erosion that occurs will be repaired as soon after the rainfall event as possible depending on equipment access.

The water control system will be constructed to manage groundwater influx as well as surface water runoff from disturbed and undisturbed lands. Use of both incised and surface ponds will be employed to effectively control sediment and water runoff. Water control structures Pond F-1 with Ditches F-1 and F-2; Pond G-1 with Ditches G-1 and G-2; Pond G-2 with Ditches G-3 and G-4; Pond H-1 with Ditches H-1 and H-2; and a levee along La Jarita Creek are proposed to be constructed during this proposed permit term. The proposed water control structures are shown on Exhibits 139-1 and 148-1 of the permit application. Refer to Section 12.148 for detailed information about the water control facilities.

Abandonment plans for water control structures will be formulated to assure that postmine land meets the intended land use. Plans will be submitted to the RCT and MSHA, if required, for approval prior to implementation. If these constitute revisions, SMEC will

submit the plans during a major revision or renewal application if possible. Otherwise, an individual revision request will be submitted.

FACILITIES

Electrical distribution facilities (powerline and substations) are proposed for the permit area. All facilities areas will be maintained to provide a safe, secure working environment. The location of the mine facilities is shown on Exhibit .139-1.

REMOVAL OF FACILITIES

All electrical distribution facilities are proposed to be removed when no longer required following completion of operations. Salvageable materials will be removed for applicable disposal (i.e., sold, moved, etc.). Non-salvageable material will be disposed in approved disposal areas or by licensed disposal contractors. Water retention structures will be regraded if the landowner does not request them to be left intact. If a request is made for a facility not currently approved as permanent, a revision will be submitted to the RCT for approval during a renewal/revision period if feasible. Topsoil will be redistributed and the areas revegetated.

EXISTING STRUCTURES

There are no existing structures in the proposed permit area that will be used in connection with or to facilitate the coal mining and reclamation operation.

EQUIPMENT

The following is a list of equipment planned for mining and reclamation operations during the proposed permit term. The number of units is approximate, based on experience and engineering estimates. Brand names and models are provided to indicate the general type and class of equipment and both may vary.

.Item	Description	No.	Make	Model
1	Scraper	1	Caterpillar	631
2	Front End Loader	3	Caterpillar	992C or K
3	Lignite/Overburden Hauler (end dump)	8	Komatsu	330M
4	Lignite Hauler (bottom dump)	7	Komatsu	330M
5	Lignite/Overburden Hauler (end dump)	2	Caterpillar	777F
6	Lignite/Overburden Hauler (end dump)	6	Komatsu	785
7	Dozer Crawler w/Ripper	5	Komatsu	375
8	Dozer Crawler	1	Caterpillar	D8N
9	Dozer Crawler w/Ripper	2	Komatsu	475
10	Dozer Crawler	1	Caterpillar	D5
11	Dozer, Rubber Tired	2	Caterpillar	834H
12	Motor Grader	4	Caterpillar	16H or M
13	Water Truck	3	Komatsu	330M
14	Hydraulic Crane	1	Grove	50T
15	Diesel Pump	7	Gorman/Crisafulli	4 in.,6 in./10 in.
16	Lube/Service Truck	3	Ford	L8000
17	Welding/Mechanic Truck	3	Ford	F600
18	Continuous Surface Miner	2	Huron	1224
19	*Dragline	1	Page	740
20	*Dragline	1	Marion	8050
21	Pickups	20	Chevrolet (1/2 to 1 ton)	
22	Bus	2	Ford or Freightliner	
23	Manlift	1	Ford	MP-60
24	Tire Truck	1	Ford	LN8000
25	Forklift	2	Hyster	15T/2T
26	Cable Tractor	2	John Deere	5400
27	Light Plant	14	Maxi-Lite or Allight	6 kW
28	Compressor	2	Ingersol-Rand/Sullair	
29	Welding Machine	6	Miller/Lincoln	400-600 AMP
30	Disc Harrow	3	Various	
31	Tractor	3	John Deere	4440
32	Scraper	1	Middland	
33	Plows	3	KMC/IHC.	
34	Trailer	1	WW Goose neck	
35	Sprigger	1	Bermuda King	
36	Root Rake	1	Draft Wake	
37	Seeder	1	Brillion	
38	Fertilizer Tendon	1	Tyler	
39	Shredder	1	Bush Hog	
40	Sprayer	1	Cont. Belton	
41	Roller	1		
42	Soil Sampler	1	Bull	
43	Hydraulic Excavator	1	Komatsu	PC2000

* Draglines include electrical distribution equipment such as substations, cable couplers and skids.

AIR POLLUTION CONTROL PLAN

Fugitive dust control is an important part of lignite mining operations. The fugitive dust control program includes the following measures:

- Haul roads will be watered as required by water trucks.
- Traffic will be confined to specific roads to the extent possible to minimize fugitive dust emissions.
- Road surfaces will be graded to stabilize/remove dust-forming debris as required.
- Areas adjoining the roads will be stabilized and vegetated.
- Vehicular speeds will be controlled to minimize dusting conditions.
- Disturbed areas will be regraded, topsoil replaced and revegetated as soon as practicable.
- Cleared vegetation and materials within the mine area will be burned in accordance with approved TCEQ guidelines.

Environmentally acceptable water additives may be utilized to assist in depressing dust emissions from roads.

Water for dust control will be sourced from existing water truck filling stations in the Permit 11G area. It will also be hauled using water trucks from various ponds or wells in the proposed permit area.

FACILITY CONSTRUCTION, MODIFICATION, USE MAINTENANCE, AND REMOVAL

A. Dams, embankments and other impoundments

Site preparation will consist of clearing and grubbing to remove trees, stumps, brush, fencing and any other undesirable materials. Sediment control measures will be placed to reduce any

contributions of sediment to the receiving waters and adjacent areas. All topsoil and organic material will be removed from the pond, berm and sediment pool area. The constructed embankments, berms and ditches will be covered with a minimum of 6-inches of topsoil and seeded or sprigged with Bermuda grass.

Any modifications required for water control structures will be designed by a registered professional engineer in accordance with all applicable regulations. While these structures are in use, they will be maintained by proper grading and vegetating in accordance with the appropriate guidelines described in Section .145. At the completion of mining and reclamation, each of the water control structures will be reclaimed or if desired to be left as a permanent structure, detailed designs for permanent status will be prepared and submitted to the RCT for approval. These designs will take into account final, postmine watersheds and ponds parameters.

B. Overburden and topsoil handling and storage areas and structures

All overburden, haulback, and topsoil stockpiles will be temporary structures approximately 40 feet tall, maximum of 3:1 side slopes, and will be seeded within 60 days, weather and planting conditions permitting, following completion of construction to minimize erosion. Temporary stockpiles placed in the vicinity of boxcut placement areas will remain in place until final reclamation of the associated mine area. Once reclamation activities deplete the stockpiles, all stockpiles will be regraded to approximate pre-mine contours and the disturbed areas will be seeded. The area will be monitored to ensure vegetation is reestablished over the stockpile footprint areas.

C. Coal removal, handling, storage, cleaning, and transportation areas and structures

Coal removal, handling, and cleaning will occur within the pit floor area and coal will be stored at the coal stockpile located adjacent to the power plant. The transportation facilities include the ramps, primary roads, and ancillary roads needed to facilitate equipment and material movement from the mining area to the power plant. Road and ramp alignments will be cleared and grubbed and temporary culverts will be placed in low areas and drainage ways as needed. Primary and ancillary roads will be inspected regularly for signs of degradation and

will be maintained to insure a safe, reliable transportation system. When no longer in use, the roads will be removed or regraded, and the topsoil replaced and revegetated as part of the reclamation plan. If a landowner requests that a road be left in place, a permanent design plan will be submitted to the RCT as a revision prior to the date of proposed road reclamation.

D. Spoil, coal processing waste, and noncoal waste removal, handling, storage, transportation, and disposal areas and structures;

Spoil peaks in the mine pit area will be temporary structures, which will be regraded through the use of dozers. Final spoil grading entails establishing the drainage patterns and other land features to obtain the approximate original contour. Haul back and topsoil will be placed on areas once final spoil grading has occurred and seeded. Coal processing is not performed at this mine; therefore, no coal processing wastes are generated. Non-coal wastes on the land to be mined are restricted to trees and brush resulting from clearing and grubbing operations. These will be stacked and burned under current approval as agricultural burning by the TCEQ and the remnants spread or placed in the mine pits. The material could also be pushed into an open mine pit and buried. Non-coal wastes generated at the facilities are disposed using a private waste disposal company, which transports the waste off site to an approved disposal site.

E. Mining facilities

Electrical distribution facilities (powerline and substations) are proposed for the permit area. All facilities areas will be maintained to provide a safe, secure working environment. All electrical distribution facilities are proposed to be removed when no longer required following completion of operations. Salvageable materials will be removed for applicable disposal (i.e., sold, moved, etc.). Non-salvageable material will be disposed in approved disposal areas or by licensed disposal contractors. If a request is made for a facility not currently approved as permanent, a revision will be submitted to the RCT for approval during a renewal/revision period if feasible. Topsoil will be redistributed and the areas revegetated.

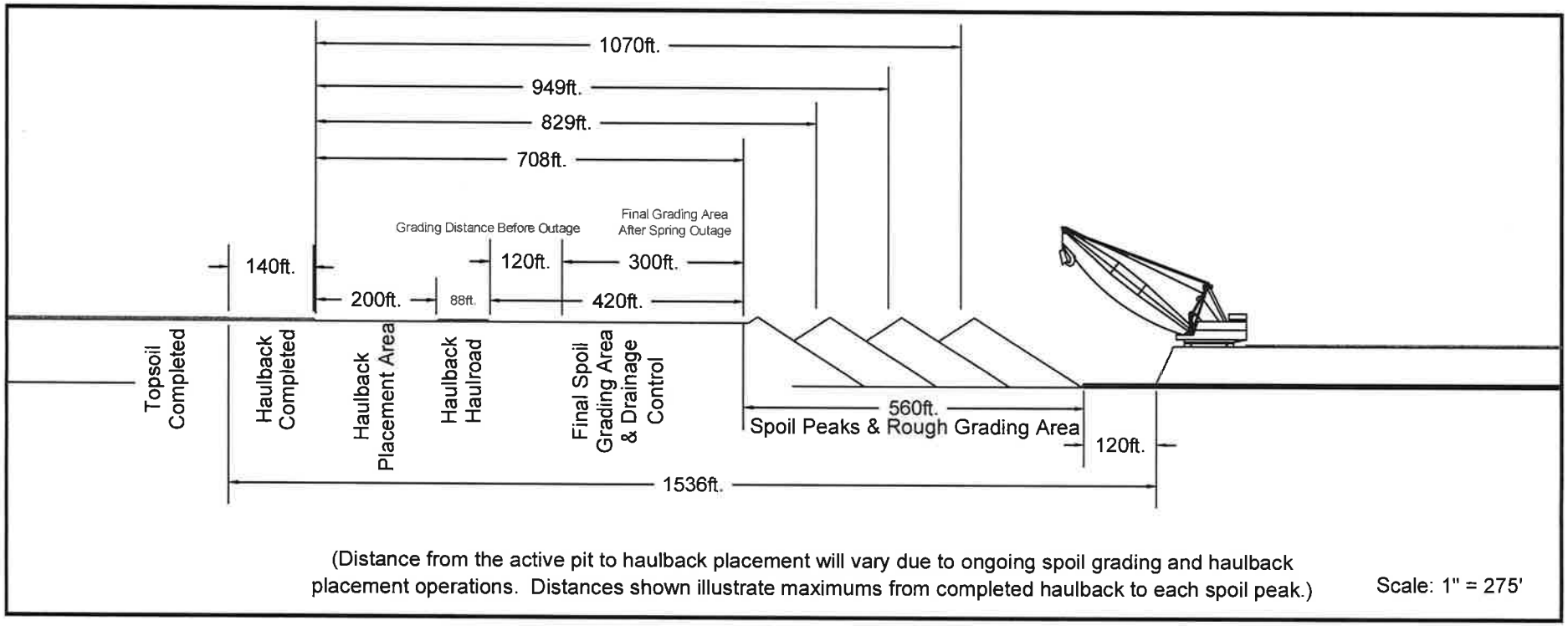
F. Water and Air Pollution Control Facilities

There are currently no proposed water and air pollution control facilities in this area.

FIGURES

Figure .139-1

Typical Reclamation Operation - Cross Sectional View



(Distance from the active pit to haulback placement will vary due to ongoing spoil grading and haulback placement operations. Distances shown illustrate maximums from completed haulback to each spoil peak.)

Scale: 1" = 275'

Figure .139-2

Typical Haulback Placement Operation - Plan View